# Obsessive-compulsive disorder

Obsessive-compulsive disorder (OCD) is a mental health condition characterized by features called obsessions and compulsions. Obsessions are intrusive thoughts, mental images, or urges to perform specific actions. While the particular obsessions vary widely, they often include fear of illness or contamination; a desire for symmetry or getting things "just right;" or intrusive thoughts involving religion, sex, or aggression. Compulsions consist of the repetitive performance of certain actions, such as checking or verifying, washing, counting, arranging, acting out specific routines, or seeking assurance. These behaviors are performed to relieve anxiety, rather than to seek pleasure as in other compulsive behaviors like gambling, eating, or sex.

While almost everyone experiences obsessive feelings and compulsive behaviors occasionally or in particular contexts, in OCD they take up more than an hour a day and cause problems with work, school, or social life. People with OCD generally experience anxiety and other distress around their need to accommodate their obsessions or compulsions.

About half the time, OCD becomes evident in childhood or adolescence, and most other cases appear in early adulthood. It is unusual for OCD to start after age 40. It tends to appear earlier in males, but by adulthood it is slightly more common in females. Affected individuals can experience periods when their symptoms increase or decrease in severity, but the condition usually does not go away completely.

Some people with OCD have additional mental health disorders such as generalized anxiety, depression, phobias, panic disorders, or schizophrenia. OCD can also occur in people with other neurological conditions such as Tourette syndrome and similar disorders, traumatic brain injury, stroke, or dementia.

# Frequency

OCD is a common condition, occurring in about 2 percent of the population.

#### Causes

The cause of OCD is unknown. Researchers are investigating whether the condition might involve changes in the brain's response to chemical messengers (neurotransmitters) such as serotonin or dopamine. Problems with regulating the activity of and interaction between various parts of the brain are also thought to contribute to the condition.

Variations in certain genes that provide instructions for proteins that react to or transport serotonin have been associated with an increased risk of OCD. Variations in other genes involved in communication in the brain may also be associated with the

condition. However, not all people with OCD have an associated variation, and not all people with the variations will develop OCD.

In addition to genetic factors, researchers are studying environmental factors that might contribute to OCD, including complications during pregnancy or childbirth and stressful life events. However, none have been conclusively associated with this disorder. It seems likely that environmental conditions interact with genetic factors to determine the overall risk of developing OCD.

#### Inheritance Pattern

The inheritance pattern of OCD is unclear. Overall, the risk of developing this condition is greater for first-degree relatives of affected individuals (such as siblings or children) as compared to the general public. For unknown reasons, the risk of inheriting the disorder appears to be higher in some families than in others. However, most people who have a close relative with OCD will not develop the condition themselves.

#### Other Names for This Condition

- anancastic neurosis
- anankastic neurosis
- obsessive-compulsive neurosis
- OCD

## **Diagnosis & Management**

# **Genetic Testing Information**

- What is genetic testing?
   /primer/testing/genetictesting
- Genetic Testing Registry: Obsessive-compulsive disorder https://www.ncbi.nlm.nih.gov/gtr/conditions/C0028768/

#### Research Studies from ClinicalTrials.gov

ClinicalTrials.gov
 https://clinicaltrials.gov/ct2/results?cond=%22obsessive-compulsive+disorder%22

### Other Diagnosis and Management Resources

- Anxiety and Depression Association of America: Screening for Obsessive-Compulsive Disorder (OCD)
   https://adaa.org/screening-obsessive-compulsive-disorder-ocd
- Anxiety and Depression Association of America: Treatment for Obsessive-Compulsive Disorder (OCD)
   https://adaa.org/understanding-anxiety/obsessive-compulsive-disorder-ocd/ treatment

- MedlinePlus Medical Tests: Mental Health Screening https://medlineplus.gov/lab-tests/mental-health-screening/
- National Institute of Mental Health: Psychotherapies
   https://www.nimh.nih.gov/health/topics/psychotherapies/index.shtml

#### **Additional Information & Resources**

#### Health Information from MedlinePlus

- Encyclopedia: Obsessive-Compulsive Disorder https://medlineplus.gov/ency/article/000929.htm
- Health Topic: Obsessive-Compulsive Disorder https://medlineplus.gov/obsessivecompulsivedisorder.html
- Medical Tests: Mental Health Screening https://medlineplus.gov/lab-tests/mental-health-screening/

#### Additional NIH Resources

 National Institute of Mental Health: Obsessive-Compulsive Disorder https://www.nimh.nih.gov/health/topics/obsessive-compulsive-disorder-ocd/index.shtml

#### **Educational Resources**

- American Academy of Family Physicians: Obsessive-Compulsive Disorder https://familydoctor.org/condition/obsessive-compulsive-disorder/?adfree=true
- American Psychiatric Association: What is Obsessive-Compulsive Disorder? https://www.psychiatry.org/patients-families/ocd/what-is-obsessive-compulsive-disorder
- HelpGuide.org: Obsessive-Compulsive Disorder (OCD)
   https://www.helpguide.org/articles/anxiety/obssessive-compulsive-disorder-ocd.htm
- KidsHealth: Obsessive-Compulsive Disorder https://kidshealth.org/en/parents/ocd.html
- MalaCards: obsessive-compulsive disorder https://www.malacards.org/card/obsessive\_compulsive\_disorder
- MalaCards: obsessive-compulsive personality disorder https://www.malacards.org/card/obsessive\_compulsive\_personality\_disorder
- Mental Health Foundation of New Zealand: Obsessive Compulsive Disorder https://www.mentalhealth.org.nz/get-help/a-z/resource/17/obsessive-compulsive-disorder
- Merck Manual Professional Version: Obsessive-Compulsive Disorder https://www.merckmanuals.com/professional/psychiatric-disorders/obsessive-compulsive-and-related-disorders/obsessive-compulsive-disorder-ocd

- National Health Service (United Kingdom): Obsessive Compulsive Disorder (OCD) https://www.nhs.uk/conditions/obsessive-compulsive-disorder-ocd/
- Royal College of Psychiatrists (United Kingdom): Obsessive-Compulsive Disorder https://www.rcpsych.ac.uk/mental-health/parents-and-young-people/informationfor-parents-and-carers/obsessive-compulsive-disorder-in-children-and-youngpeople-information-for-parents-and-carers

### Patient Support and Advocacy Resources

- Anxiety and Depression Association of America: Obsessive-Compulsive Disorder (OCD)
  - https://adaa.org/understanding-anxiety/obsessive-compulsive-disorder-ocd
- International OCD Foundation https://iocdf.org/
- National Alliance on Mental Illness: Obsessive-Compulsive Disorder https://www.nami.org/learn-more/mental-health-conditions/obsessive-compulsive-disorder

#### Scientific Articles on PubMed

PubMed

https://www.ncbi.nlm.nih.gov/pubmed?term=%28Obsessive-Compulsive+Disorder %5BMAJR%5D%29+AND+%28obsessive-compulsive+disorder%5BTI%5D %29+AND+review%5Bpt%5D+AND+english%5Bla%5D+AND+human%5Bmh%5D +AND+%22last+720+days%22%5Bdp%5D

# Catalog of Genes and Diseases from OMIM

 OBSESSIVE-COMPULSIVE DISORDER http://omim.org/entry/164230

#### Medical Genetics Database from MedGen

 Obsessive-compulsive disorder https://www.ncbi.nlm.nih.gov/medgen/14445

# **Sources for This Summary**

- Bokor G, Anderson PD. Obsessive-compulsive disorder. J Pharm Pract. 2014 Apr;27(2):116-30. doi: 10.1177/0897190014521996. Epub 2014 Feb 27. Review.
   Citation on PubMed: https://www.ncbi.nlm.nih.gov/pubmed/24576790
- Bozorgmehr A, Ghadirivasfi M, Shahsavand Ananloo E. Obsessive-compulsive disorder, which genes? Which functions? Which pathways? An integrated holistic view regarding OCD and its complex genetic etiology. J Neurogenet. 2017 Sep;31(3):153-160. doi: 10.1080/01677063.2017.1336236. Epub 2017 Jun 13. Review.
   Citation on PubMed: https://www.ncbi.nlm.nih.gov/pubmed/28608743

- Brander G, Pérez-Vigil A, Larsson H, Mataix-Cols D. Systematic review of environmental risk factors for Obsessive-Compulsive Disorder: A proposed roadmap from association to causation. Neurosci Biobehav Rev. 2016 Jun;65:36-62. doi: 10.1016/j.neubiorev.2016.03.011. Epub 2016 Mar 21. Review.
  - Citation on PubMed: https://www.ncbi.nlm.nih.gov/pubmed/27013116
- Drubach DA. Obsessive-compulsive disorder. Continuum (Minneap Minn). 2015 Jun;21(3
  Behavioral Neurology and Neuropsychiatry):783-8. doi: 10.1212/01.CON.0000466666.12779.07.
  Review.
  - Citation on PubMed: https://www.ncbi.nlm.nih.gov/pubmed/26039854
- Fernandez TV, Leckman JF, Pittenger C. Genetic susceptibility in obsessive-compulsive disorder. Handb Clin Neurol. 2018;148:767-781. doi: 10.1016/B978-0-444-64076-5.00049-1. Review. Citation on PubMed: https://www.ncbi.nlm.nih.gov/pubmed/29478613
- Goodman WK, Grice DE, Lapidus KA, Coffey BJ. Obsessive-compulsive disorder. Psychiatr Clin North Am. 2014 Sep;37(3):257-67. doi: 10.1016/j.psc.2014.06.004. Epub 2014 Jul 23. Review. Citation on PubMed: https://www.ncbi.nlm.nih.gov/pubmed/25150561
- Pauls DL, Abramovitch A, Rauch SL, Geller DA. Obsessive-compulsive disorder: an integrative genetic and neurobiological perspective. Nat Rev Neurosci. 2014 Jun;15(6):410-24. doi: 10.1038/ nrn3746. Review.
  - Citation on PubMed: https://www.ncbi.nlm.nih.gov/pubmed/24840803
- Sinopoli VM, Burton CL, Kronenberg S, Arnold PD. A review of the role of serotonin system genes in obsessive-compulsive disorder. Neurosci Biobehav Rev. 2017 Sep;80:372-381. doi: 10.1016/j.neubiorev.2017.05.029. Epub 2017 May 30. Review.
   Citation on PubMed: https://www.ncbi.nlm.nih.gov/pubmed/28576508
- Veale D, Roberts A. Obsessive-compulsive disorder. BMJ. 2014 Apr 7;348:g2183. doi: 10.1136/bmj.g2183. Review.
   Citation on PubMed: https://www.ncbi.nlm.nih.gov/pubmed/24709802

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